

Course Specifications

Programme(s) on which the course is given: Ch., Ch.&P., Ch.&G., Ch.&Z., Ch& B, Ch.&Mbio, Ch. & Insect.

Major or Minor element of programmes: major - major- major - major –major-- major –major

Department offering the programme: Multidisciplinary

Department offering the course Chemistry

Academic year / Level: Second

Prerequisite: CH-145

Date of specification approval: 2013

A- Basic Information

Title: Aromatic organic chemistry

Code: CH246

Credit Hours: 2 h Lecture: 1.5 -

Tutorial: 1 Practicals: 2 Total: 2 h

B- Professional Information

1 – Overall Aims of Course

For students undertaking this course, the aims are to:

- Introduce the basic concepts of Aromatic Chemistry.**
- Introduce the major classes of organic aromatic compounds.**
- Introduce the principles of nomenclature of major classes of aromatic compounds.**
- Study the methods of preparation of major classes of aromatic compounds.**
- Study the chemical reactions and their mechanisms of major classes of aromatic compounds.**
- Enable the students to use chemical reactions in preparing different aromatic compounds.**

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

a1- Define the basic concepts of aromatic chemistry .

a2- Recognize the different classes of aromatic compounds and their reactivity's.

- a3- Know the nomenclature of aromatic compounds.
- a4- Know the different reactions mechanism of aromatic preparations
- b- Intellectual Skills
 - b1-Understand of aromatic structures and suggest an appropriate mechanism for their chemical reactions.
 - b2-Apply the preparation of sulpha drugs from aromatic compounds.
 - b3- Predict products of a hypothetical reaction.
- c- Professional and Practical Skills: No practical or tutorial hours
- d- General and Transferable Skills: On completing this course, students will be able to:
 - d1- Work effectively both in a team, and independently on solving problems.
 - d2- Use IT and search for information.
 - d3- Communicate effectively with his teacher and colleagues.

3- Contents

Topic	No. of hours	Lecture	Tutorial/Practical
Electrophilic substitution in benzene	4	4	-
Aromatic Amines	4	4	-
Aromatic sulphonic acid	4	4	-
Phenol and aromatic halides	4	4	-
Aldehydes and aromatic	4	4	-

ketons			
Aromatic acids	4	4	-
Aromatic amides and esters	4	4	-

4– Teaching and Learning Methods

4.1- Lectures using data show and board

4.2 - Problem classes and group tutorial

4.3 – Home works, Reports and discussion groups

5- Student Assessment Methods

5.1 written examination to assess the understanding

Assessment Schedule

Assessment 1 short exam (class activities) Every two weeks

Assessment 2 mid-term (written) Week 8

Assessment 3 final-term (written) Week 13

Weighting of Assessments

Mid-Term Examination 20%

Final-term Examination 60%

Semester Work 20%

Total 100%

6- List of References

6.1- Course Notes

Prepared in the form of book authorized by department.

6.3- Recommended Books

Organic Chemistry, John E. McMurry, 5th ed (2000).

Websites on the internet that are relevant to the topics of the course:

http://en.wikipedia.org/wiki/Organic_chemistry

www.chemweb.com

<http://www.organic-chemistry.org/>

<http://www.acdlabs.com/iupac/nomenclature/>

7- Facilities Required for Teaching and Learning

- **Data show, screen, and laptop computer.**
- **White board and colored pens**

Course Coordinator: Prof. Dr. / Farag El-Essawy

Head of Department: Prof. Dr. / Adel Nassar

Date: / /